OWNER'S MANUAL

US

MPS B2

Seat Assembly for Permobil Power Wheelchair

permobil

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MPS B2

Sitssytem för elektrisk rullstol

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Important Information about this Owner's Manual

We congratulate you on your choice of a product from Permobil. Our goal is for you to continue to feel satisfied with your choice of both vendor and product.

Before you begin using your seat and wheelchair, it is important that you read and understand the content of these operating instructions and in particular the Safety Instructions.

These operating instructions are primarily intended to acquaint you with the functions and characteristics of the seat and how you can use them in the best manner possible. They also contain important safety and maintenance information, as well as describing possible problems that can arise during use.

Always keep these operating instructions handy in connection with your wheelchair, since the need for important information can arise concerning its use, safety and maintenance.

It is also possible to obtain information concerning our products from our home page on the Internet. You can find us at www.permobil.com.

All information, pictures, illustrations and specifications are based upon the product information that was available at the time that these operating instructions were printed. Pictures and illustrations that are found in these operating instructions are representative examples and are not intended to be exact depictions of the various parts of the seat.

We reserve the right to make changes to the product without prior notice.

TECHNICAL SUPPORT

In the event of technical problems, you should contact your dealer or Permobil Inc USA at 1-800-736-0925.

Always state the seats serial number and wheelchair chassis serial number when contacting Permobil to ensure that the correct information is provided.

SPARE PART & ACCESSORIES

Spare parts and accessories must be ordered through your dealer.

SCRAPPING THE SEAT

Contact Permobil Inc. for information about scrapping agreements in force.

WARRANTY

A warranty registration card is attached to each new wheelchair. The Permobil Inc. Product Warranty Information sets forth the conditions of the warranty.

Contact your dealer or Permobil Inc USA for information about the warranty period for this wheelchair and seat.

PRODUCT APPROVAL

This product fulfills the requirements of EN 12184 and ISO 7176.

Safety Instructions - General

The seat is heavy and contains many moving parts. Special care must therefore be taken when it is used. Please read and follow all instructions and warnings in this manual before operating your seat together with your Permobil powered wheelchair. Incorrect use may both injure the user and damage the seat and wheelchair. In order to reduce these risks, you should read the Owner's Manual carefully, in particular the safety instructions and their warning texts.

Throughout this manual the following symbol will be used to note items that have significant importance to safety concerns:

⚠ NOTE

Please use caution where this symbol appears.

⚠ WARNING

Please use extreme caution where this warning symbol appears.Failure to observe warnings can lead to personal injury and property damage, including damage to the wheelchair.

Permobil is not responsible for personal injuries or property damage resulting from any person's failure to follow the warnings and instructions in this manual. Permobil is not responsible for injuries or damage resulting from failure to exercise good judgment.

The final selection and purchasing decision about the type of electric wheelchair and seating system to be used is the responsibility of the wheelchair user and his or her healthcare professional. Permobil Inc. is not responsible for inappropriate selections of wheelchair models and seating system or features or improper fitting of the wheelchair and seat.

Safety Instructions - General

Your wheelchair and seat were configured specifically for your needs as prescribed by your healthcare provider. Consult your healthcare provider before changing the seat position or making any other adjustment. Some adjustments may reduce your wheelchair's performance or safety or may not be appropriate for your needs.

It is also of the utmost importance that you devote sufficient time to become acquainted with the different buttons, the function and steering controls, the different adjustment possibilities of the seat, etc. of your wheelchair and its accessories before you begin using it.

Do not undertake your own first test drive without making sure that you have assistance in the immediate vicinity if you should need help.

In order to make sure that nothing happened to the wheelchair while it was being shipped to you, you should check the following items before beginning to use it:

• that all products ordered are included in the delivery, incuding operating instructions and possible other documentation. If you suspect that something is missing, then contact your supplier or Permobil for more information as soon as possible.

• that no transport-related or other damages have occurred to the wheelchair, seat and its accessories. If you discover that something has been damaged or in some other manner appears to be incorrect, then contact your supplier or Permobil for more information as soon as possible before you continue the checks.

Safety Instructions

⚠ WARNING

Damage to the seat
It is most important that Permobil should be notified as soon as possible if the seat or its accessories have been damaged during transport, or damaged in any other way while running. There is a risk that the seat and its accessories can no longer be used safely.

Driving with Seat Lift/Seat Tilt
Make sure that no people are in the way of the seat when its functions are activated.

Be careful in making sure that nothing gets stuck between the chassis and the seat when the seat lift/seat tilt is operated. Operating the seat lift,seat tilt/ back-rest recline changes the center of gravity and increases the risk of tipping over. Always drive in low speed and only use those seat functions on level ground, and not on hills, ramps, slopes or other inclines. Using those seat functions while driving on inclines can lead to personal injury and property damage, including damage to the wheelchair.

Center of Balance
The possibility of this wheelchair tipping and the point where this wheelchair will tip forward, back or to the side depends on its center of balance. Please note that the following factors can affect the wheelchair's center of balance:

- Elevation of the seat
- Height and angle of the seat
- Body position or weight distribution
- Driving on an incline such as a ramp or a hill
- Use of a backpack or other accessories, depending on the amount of weight added.

If your wheelchair begins to move in an unexpected manner, immediately release the joystick to stop the wheelchair. Except in an emergency, do NOT use the on/off button to stop your wheelchair. This will cause the wheelchair to stop abruptly and may cause personal injury.

Safety Instructions

⚠ WARNING

Positioning Belt
Permobil positioning belts are designed to position the user only and will not protect you in an accident. You may even receive further injury from the belts.

Transfer into and out of the chair
Be sure that the power is turned OFF before entering or leaving the wheelchair and before lifting the control side armrest.

When transferring into or out of the wheelchair, every precaution should be taken to reduce the distance between the wheelchair and the place to which the user is transferring. Overextending this distance can cause user to overexert, lose balance, or fall.

Permobil recommends that users transfer in the presence of or with the assistance of an attendant.

Use caution when bending or reaching.

Never use the joystick as a handhold or point of support.

Do not use foot plates or armrests as supports when transferring into or out of the wheelchair. The footplates and armrests are not designed to be weight-bearing structures. Excessive force may cause them to give way, resulting in personal injury or property damage, including damage to the wheelchair.

Safety Instructions

⚠ WARNING

Passengers
The wheelchair is not intended to transport passengers, regardless of the age of the passenger. The Maximum User Weight stated in this manual includes the user and any personal effects. The Maximum limit should not be exceeded. The wheelchair's maneuverability and stability can be degraded as a result.

Environmental Conditions
Protect your seat and wheelchair from exposure to any type of moisture, including rain, snow, or wash. Exposure to moisture can cause the chair to short-circuit, catch fire and cause personal injury or property damage. Do not operate your wheelchair if it has been exposed to moisture until it has dried completely.

If any of the shrouds or the joystick boot has cracks or tears, they must be replaced immediately. Failure to do so can allow moisture to enter the electronics and cause personal injury or property damage, including fire.

NOTE: *Extreme care should be exercised when using oxygen in close proximity to electric circuits and other combustible materials. Contact your oxygen supplier for instruction in use of oxygen.*

Safety Instructions

⚠ WARNING

Transport

The wheelchair/seat must be transported in or with transport solutions that have been approved for this purpose.

Do not lift or move the wheelchair/seat by any of its removable parts. Doing so could lead to personal injury and property damage, including damage to the seat and wheelchair.

Check that the wheelchair is properly secured and that the wheel locks are not disengaged. The wheelchair can be locked into position by running fastening straps through the brackets at the front and back. Also check that the fastening points on the transport vehicle are well-anchored.

A defectively fastened chair can cause serious injury to persons in the vehicle and serious damage to the vehicle.

Use Prohibited in Motor Vehicles

Currently, the Department of Transportation has not approved any tie-down or restraint system in a moving vehicle of any type to transport a person while seated in a wheelchair.

Permobil recommends that users NOT be transported in any kind of vehicle while in their wheelchair. The only safe alternative is that users be transferred into factory vehicle seating for transportation and use safety restraints made available by the auto industry. Permobil does not recommend any wheelchair transportation systems.

Never sit in your wheelchair while in a moving vehicle. In an accident or sudden stop you may be thrown from the chair and seriously injured or killed.

Permobil positioning belts are designed to position the user only and will not protect you in an accident. You may even receive further injury from the belts.

Safety Instructions

⚠ WARNING

Maintenance and Service
Carry out only the service and maintenance which are stated in this Owner's Manual. All other service and maintenance must be performed by a qualified service technician authorized by Permobil to perform such service on Permobil products

During all work on the electrical system of the wheelchair, the connection to the negative pole of the battery must always be removed. To avoid the risk of electric shock, use extreme caution when using metal objects while working on the batteries. Short-circuiting can easily cause an explosion. Never perform service on the wheelchair without using protective gloves and goggles. Failure to do so can lead to personal injury.

Do not use parts or accessories not authorized by Permobil. Use of unapproved "aftermarket" accessories and parts may cause changes in the wheelchair, which may make the wheelchair unstable or uncontrollable. Such use may also void the warranty on the wheelchair.

Connecting any unapproved electrical or electronic devices to the wheelchair's electrical system can cause damage to the chair and cause the chair to become uncontrollable or drive erratically. Such use may also void the warranty.

The wheelchair and seat is heavy and contains many moving parts, which means that the risk of being caught between them is always present.

Safety Instructions

⚠ WARNING

Storage
The wheelchair and its accessories must always be shut off when they are not being used. Always store the wheelchair so that access for unauthorized individuals is avoided.

Never store the wheelchair in a room in which condensation can arise (mist or dampness on the surfaces) e.g. in pool areas, laundry rooms, or similar rooms.

If you are unsure as to how your wheelchair and its accessories should be properly stored, contact your supplier or Permobil for more information.

Damages/malfunctions on the wheelchair and its accessories
If you experience that the seat or wheelchair in any manner is not behaving as expected or if you suspect that something is wrong: Stop driving as soon as possible, shut off the wheelchair and contact your service provider or Permobil for more information.

It's also of greatest importance that Permobil be informed if the wheelchair and its accessories have been subjected to transport damages, damages during driving or damages due to another cause as soon as possible after the event. There exists a risk that the wheelchair and its accessories can no longer be used in a safe and secure manner.

Controls and measures

⚠ WARNING

The person who carries out adjustments or does anything else to the seat must be familiar with the MPS B seat construction. Ensure that no persons are in the immediate proximity of the seat during adjustment. There is a risk of personal injury.

1. Check that the catches on the back rest joint are locked, see Fig.1.
2. With manual seat lift, check that the two angle limit bolts are tightened, fig 2.
3. Check that the seat inclination shaft's spring pins are in place, fig 3.

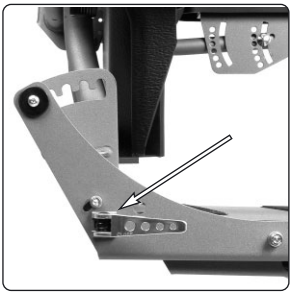


Fig. 1. Catch on the back rest joint.

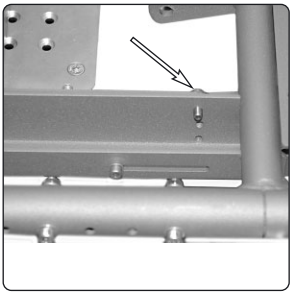


Fig. 2. Angle positioning screw.

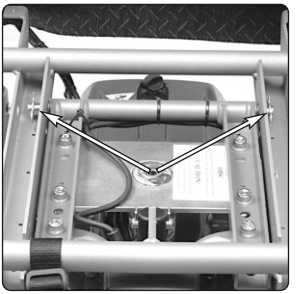


Fig. 3. Seat tilt axis spring pins.

Controls and measures

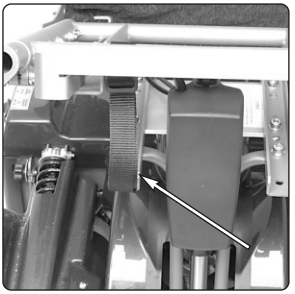


Fig. 4. Safety belt.

Fig. 5. Upper fastening of adjustment device.

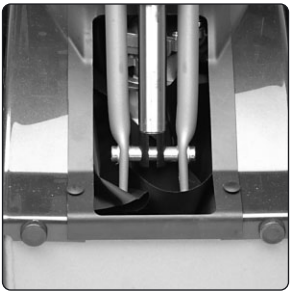


Fig. 6. Lower fastening of adjustment device.

4. Check that the safety strap is mounted, fig 4.

5. Check that the electric adjustment device's spring pins for the upper bracket are in place, fig. 5.

6. Check that the bolt for the adjustment device's lower bracket is tightened, fig. 6.

7. Check that all other screws, nuts, knobs and quick-release locks are properly tightened and fastened.

Design and function

General information

MPS B2 is a flexible seat that is designed for users up to a maximum weight of 265 lbs (120 kg). It has many adjustment options and can rapidly be adapted to the user's requirements.

The seat is constructed in modules. The seat frame constitutes the basic structure that can then be supplemented with a selection of different cushions, back rests, arm rests and leg rests. The modular system makes it easy to replace and reuse the various parts.

To ensure that you gain the maximum possible benefit from the seat, it is important that you use it correctly. So please read the user manual carefully, in particular the safety rules and regulations. Keep the user manual together with everything else that belongs to the seat.

General View, MPS B2 Seat and Pilot+ Control Panel

1. Back cushion
2. Arm rest
3. Control panel
4. Seat cushion
5. Leg rest
6. Foot plate

Accessories

Head rest

The head rest is mounted in a bracket at the back rest. The height and the angle of the head rest is adjustable. The head rest is padded with foam rubber and has an upholstery of imitation leather or fabric.

Fig. 8. Head rest with bracket.

Thigh support

The thigh supports are mounted to the seat frame. The thigh supports can be adjusted forward/backwards as well as width-wise. Also the angle against the user can be adjusted. The thigh support is padded with foam rubber and has an upholstery of imitation leather or fabric.

Calf support

The calf supports are mounted at the leg support. The height and the angle can be adjusted. The calf support is padded with foam rubber and has an upholstery of imitation leather or fabric.

Seat belt

The MPS B2 seat can be equipped with a seat belt with a buckle lock.

Hooks, push handles

With the MPS B2 seat with slingback, the push handles are an optional accessory. The push handles are mounted at the top of the back rest tubes. The intended use is for the attendant to push the whelchair when the brakes are released. With the MPS B2 seat with Ergo back rest, the push handles are standard.

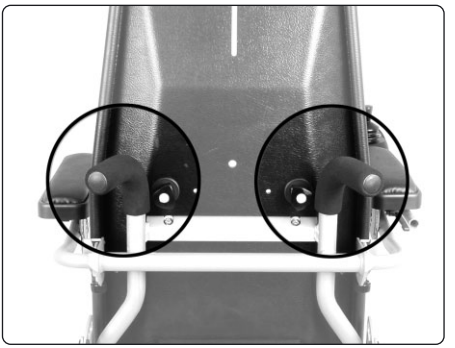


Fig. 9. Push handles.

Seat functions

General

Seat

The seat angle is manual or powered adjustable. The seat cushion has an upholstery of imitation leather or fabric. The seat width is available in 17" or 19". The back rest can be fitted in three different ways, which means that the seat depth is adjustable between 16"-20", see Fig.7.

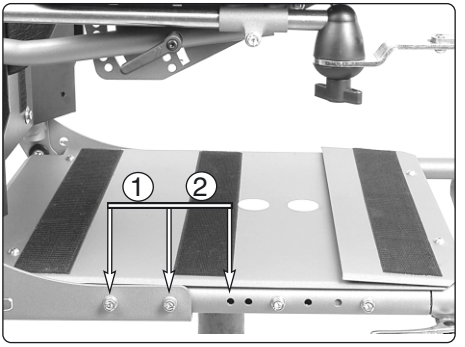


Fig. 7. Hole configuration for adjusting the seat depth.

Back rest

The angle of the backrest can be adjusted to five different positions. The back rest pad is covered in imitation leather or fabric.

Arm rest

Both the height and the angle of the arm rests can be adjusted. The arm rests are reclining. The arm rests are padded with foam rubber and have a upholstery made of imitation leather or fabric.

Leg support with foot plate

The leg support is available in a fixed or a manually adjustable version. The foot plate is adjustable in height and angle.

Seat functions

General

Electric Seat Functions (may vary depending on how your seat is equipped)
The electric seat functions are operated by the electric actuator, with infinitely variable regulation from the wheelchair's control panel or, if equipped, from the seat control panel, normally placed next to the control panel.

Functions
- Seat Lift
- Seat Tilt

⚠ WARNING

There is always a risk of crushing when the seat's electric functions are moving

Manual Seat Functions (may vary depending on how your seat is equipped)
The manual seat adjustments are carried out by adjusting the manual clamp tube with instant locks in a number of fixed positions.

Functions
- Seat Tilt
- Backrest Recline

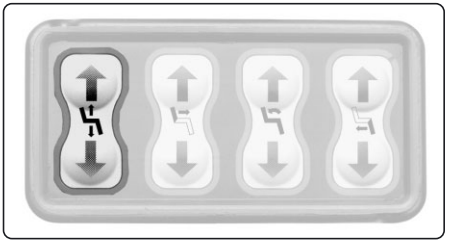
Other Adjustment Options
The control panel, armrests, footplates and various other accessories such as calfrest, thigh supports, body supports, headrest and others can be manually adjusted and regulated.

Electric Seat Functions

Power Adjustable Seat Lift

An electrically controlled seat elevator, makes it possible to raise the seat in order to conveniently be able to adjust the height for tables, workbenches, etc.

When the seat lift is raised from its lowest position, the wheelchair can only be driven with reduced speed.



Electric seat lift

⚠ WARNING

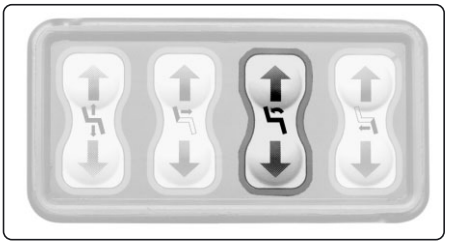
When the seat lift is raised, the center of gravity is also raised, increasing the likelihood of tipping over, so only use the seat lift on a level surface.

Always drive in the lowest speed and never tip the seat tilt or the back tilt so far that the wheelchair cannot be maneuvered safely if it runs over a slope, uneven ground or over obstacles.

Electric Seat Functions

Electric Seat Tilt

The electrically controlled seat tilt makes it possible to set the suitable seat angle. The seat angle is adjusted via the button box beside the wheelchair's control panel.



Electric seat tilt.

Set-up and adjustment

Seat depth

1. Remove the screws holding the back rest on either side, see Fig.10.
2. Choose the appropriate hole depending on the required seat depth.
3. Replace the screws.
4. Readjust the sliding seat plate by loosening the screw on either side, see Fig.11. Adjust to the required seat depth.
5. Retighten the screws. The seat depth is adjustable between 16"-20".

NB: The seat depth should be adjusted only when there is no load on the seat.

Backrest angle

The angle of the back rest is manually adjustable to five positions.

1. Release the back rest's quick-action lock on the relevant side. See Figure 12:1
2. Remove the locking screw on the relevant side. See Figure 12:2.
3. Lift the back rest up and choose the appropriate angle. Lock the back rest with the quick-action lock and refit the locking screw.

NB: The backrest angle should be adjusted only when there is no load on the seat or back.

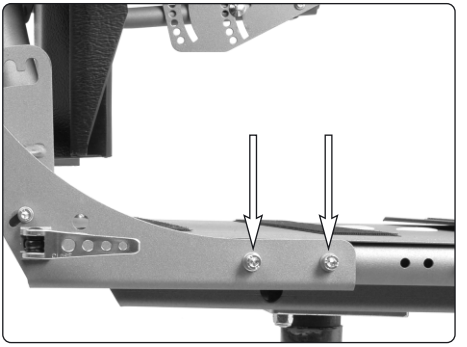


Fig. 10. Back rest attachment.

Fig. 11. Locking screw for seat plate.

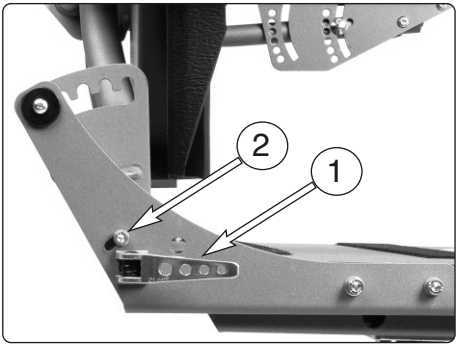


Fig. 12. Catch for back rest angle adjustment.

Seat tilt (manual adjustment)

The seat angle is adjusted by means of the screws, Fig.13.

NB: *The manual seat angle should be adjusted only when there is no load on the seat.*

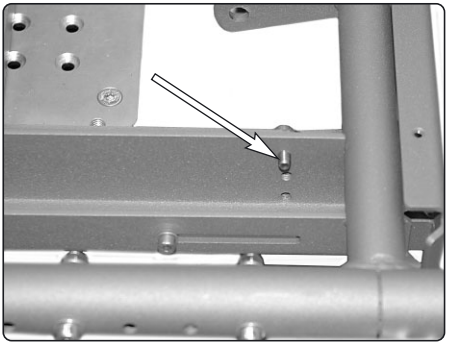


Fig. 13. Manual seat angle adjustment.

Leg rest and foot plate

Adjustment forward/backward

1. Remove the stop screw (14:1) and loosen the catch (14:2) on either side.
2. Adjust as required, fit the stop screws again and lock the catch.

Height adjustment of foot plate

1. Loosen the screw (14:3) on either side. The foot plates can now be adjusted up/down in 1" intervals.
2. Adjust as required and tighten the screws.

Fig. 14. Adjustment of leg rest and foot plate.

Arm rest

Height adjustment

Turn the knob (15:2) clockwise or counter-clockwise for the required height.

The arm rest can also be fitted the other way round, i.e. with the right arm rest joint on the left and the joint plate the other way round to increase the height.

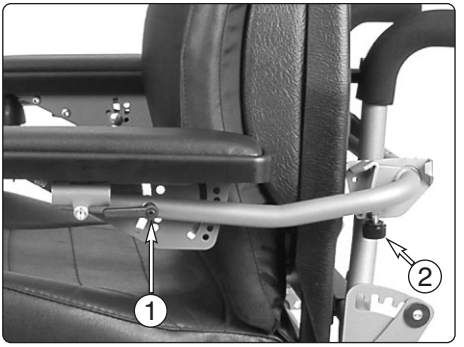


Fig. 15. Adjustment of armrest.

Arm rest angle

1. Loosen the handle (15:1).
2. Adjust to the required angle.
3. Tighten the handle.

Length adjustment

The arm rest can be fitted in two postions.

1. Loosen the screw (16:1) and the handle (15:1).
2. Remove the joint plate.
3. Fit the handle and the screw again.

NB! Locking the arm rest angle

Use the enclosed stop screw, **A,** and lock the arm rest by screwing the stop screw into the predrilled hole, **B** (Figure 16).

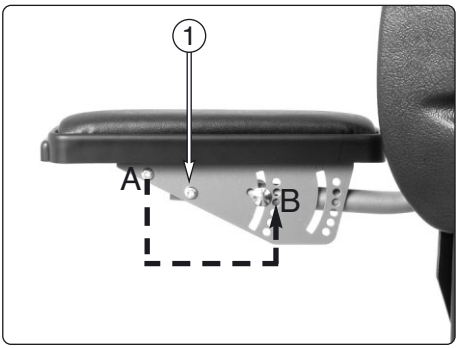


Fig. 16. Locking the arm rest angle.

Calf support (optional)

Height adjustment

1. Loosen both screws on the back of the calf support.
2. Adjust as required.
3. Tighten the screws.

Calf support angle

1. Loosen the screw (17:1).
2. Adjust the angle as required.
3. Tighten the screw.

The calf support can also be fitted the other way round, i.e. with the right calf-rest attachment on the left calf support to lower the position of the calf support.

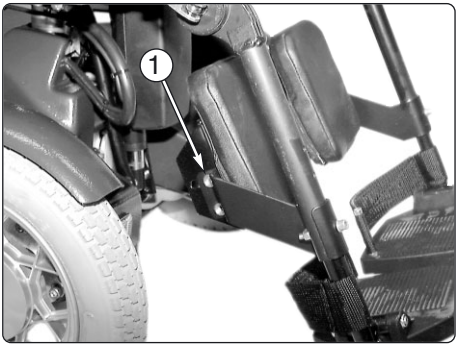


Fig. 17. Adjustment of calf support.

Thigh support (optional)

Longitudinal adjustment

1. Loosen the screw (18:1).
2. Adjust the thigh support holder lengthwise in relation to the seat bar.
3. Tighten the screw.

The thigh support can also be adjusted lengthwise in relation to the seat by opening the upholstery on the thigh support and loosening the stop screw (18:2).

Thigh support angle

1. Loosen the handle (18:3).
2. Adjust the thigh support to the appropriate angle.
3. Tighten the handle.

Width adjustment

1. Loosen the handle (18:3) and the screw (18:4).
2. Adjust the width between the thigh-rests.
3. Tighten the screw and the handle.

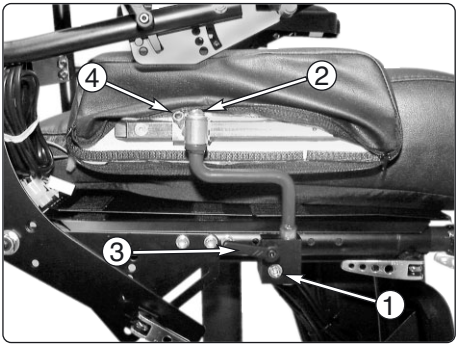


Fig. 18. Adjustment of thigh support.

Head rest - Ergo back (optional)

Height adjustment

1. Loosen the handle (19:1).
2. Adjust the height as required.
3. Tighten the handle.

Head rest angle

1. Loosen the handle (19:2).
2. Adjust the angle as required.
3. Tighten the handle.

Head rest removal

1. Loosen the handle (19:2).
2. Pull the head rest sideways out of the head rest holder.

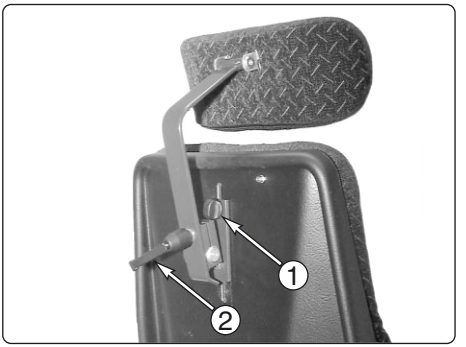


Fig. 19. Headrest - Ergo Back

Head rest – Slingback (optional)

Height adjustment

1. Loosen the handle, see Fig.20.
2. Adjust the height as required.
3. Tighten the handle.

Head rest angle

1. Loosen the handle and the screws on the back of the head rest attachment, see Fig.20.
2. Adjust the angle as required.
3. Tighten the screws and the handle.

Head rest removal

1. Loosen the handle, see Fig.20.
2. Pull the head rest out of the head rest holder.

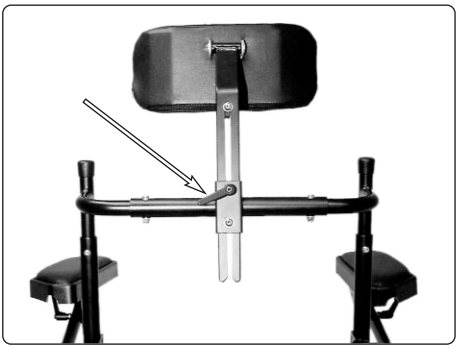


Fig. 20. Head rest - Slingback.

Finishes Care and Maintenance

With regular care and maintenance, your Permobil will provide years of superior performance and satisfaction. To maintain the finish quality of your wheelchair, please follow the cleaning procedures provided below.

The instructions for the care and maintenance of Permobil products are provided to you as a service. No warranty is implied since results may vary.

Vinyl Upholstery

For normal cleaning, wash vinyl upholstery with a soft cloth or soft-bristled brush lathered with mild, nonabrasive soap and lukewarm water. Before the surface dries, wipe with a clean, dry cloth to remove any residue. This procedure may be repeated to remove stubborn dirt or stains. Ink spots can sometimes be removed by washing with soap and water followed by isopropyl alcohol.

Do not use any cleaning method that is not listed above, as other methods may attack the vinyl and cause eventual degradation.

Coated Metal

For normal cleaning, wash coated metal surfaces with a soft cloth soaked in detergent and warm water; rinse thoroughly and dry.

Remove scuff marks from low-gloss coatings with pre-softened paste wax, following the manufacturer's instructions.

Remove scuff marks and scratches from high-gloss coatings using automotive polishing compounds, either liquid or paste. After polishing, apply a pre-softened automotive paste wax to restore original sheen.

Plastic

For normal cleaning, wash plastic surfaces with a soft cloth soaked in mild detergent and warm water. Rinse thoroughly and dry with a soft cloth. Do not use solvents or abrasive kitchen cleaners.

Also see the washing instructions on the various cushions. If necessary, the covers can be taken off for cleaning.

Transport

In order that the seat takes less space when transported, the back support and leg supports can be removed.

Back rest removal

1. Remove the seat pad.
2. Loosen the handle approximately 8 turns, see Fig.21.
3. Pull the back rest straight up.

Removing the leg rest

1. Pull the lever on the leg rest in the direction of the arrow (22:1) and fold the leg rest outwards at the same time (22:2).
2. Lift the leg rest up from the bracket (22:3).

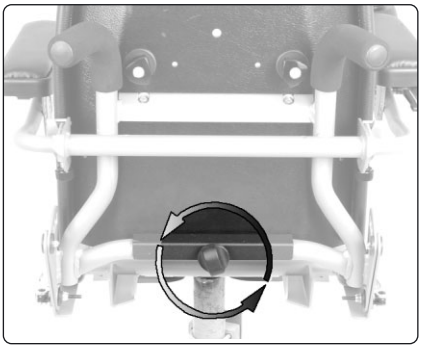


Fig. 21. Back rest removal.

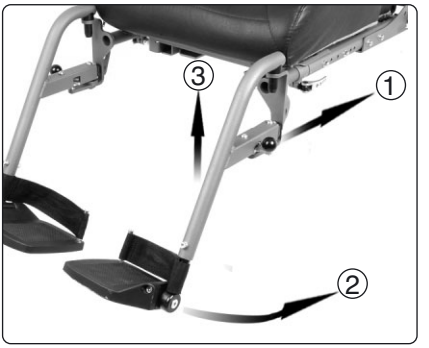


Fig. 22. Removing the leg rest.

Technical specifications

Seat width..... 17" or 19"

Seat depth ..... 16" - 20"

Seat height front edge seat..... 22"

Back height (Ergo back rest)..... 24"

Arm rest length ..... 11"

Arm rest height ..... 7" - 11"

Leg support length ..... 13" - 17"

Back rest angle ..... 5°/12°/18°/24°/30°

Seat tilt, electrical ..... 0° - 30°/ 0°- 45°

Seat tilt, manual. ..... 0° - 10° (3 positions)

Weight without accessories ..... 46 lbs

Personal weight limits

Manual seat angle	**0° - 10°**	**264 lbs**
Electrically regulated seat angle	**0° - 30°/ 0°- 45°**	**220 lbs**

US

MPS B2

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